

Agenda Item #9
November 2, 2001

To: Delta Protection Commission
From: Lori Clamurro, Delta Protection Commission Staff
Subject: Briefing on Delta Wetlands Project, San Joaquin and Contra Costa Counties
(For Commission Information Only)

NOTE: The format of this staff report is the format developed by the Delta Protection Commission for the review of CALFED Ecosystem Restoration Projects.

BACKGROUND:

At the last meeting, the Commission received a briefing from DWR staff on the CALFED In-Delta Storage program. The Commission requested more information on the original Delta Wetlands Project. No action is agendized for this item.

(For more information on the chronology of the Delta Wetlands Project, see pg. 12).

PROJECT PROPONENT: Delta Wetlands Properties, a private venture formed to manage development of the Delta Wetlands Project.

PROJECT LOCATION *(See Figure 3I-1, pg. 13):*

Zone of the Delta: Primary

Counties: San Joaquin and Contra Costa

Island/Tracts: Webb Tract, Bacon Island, Bouldin Island, and Holland Tract

Reclamation Districts: 2026 (Webb), 2028 (Bacon), 756 (Bouldin), and 2025 (Holland)

Acres: 20,345

Adjacent Waterways:

- **Webb Tract:** San Joaquin River to the north and east, Fisherman's Cut to the west, and False River to the southwest. Franks Tract to the south.
- **Bacon Island:** Connection Slough and Old River to the north, Old River to the west, Santa Fe Cut to the south, and Middle River to the east.
- **Bouldin Island:** Mokelumne River to the north and west, Potato Slough to the south, and Little Potato Slough to the east.
- **Holland Tract:** Sand Mound Slough to the north and west, Rock Slough to the south, and Holland Cut and Old River to the east.

Ownership and Land Uses on Adjacent Lands

Island / Tract	Ownership(s)	Land Use(s)
Brannan-Andrus	Private;CA Dept. of Parks and Recreation	Agriculture; State Park
Twitchell	CA Dept. of Water Resources	Agriculture
Bradford	Private	Agriculture
Jersey	Ironhouse Sanitary District	Agriculture;Grazing
Bethel	Private	Residential; Recreation
Franks	CA Dept. of Parks and Recreation	State Recreation Area (open water)
Mandeville	Private	Agriculture
Quimby	Private	Agriculture
Venice	Private	Agriculture
Palm	Private	Agriculture; Habitat
Orwood	Private	Agriculture
Woodward	Private	Agriculture
Lower Jones	Private	Agriculture
Mildred	Private	Flooded
Staten	Private	Agriculture; Habitat
Tyler	Private	Agriculture
Empire	Private	Agriculture
Terminous	Private	Agriculture
Hotchkiss	Private	Agriculture
Veale	Private	Agriculture

HISTORY OF OWNERSHIP OF THE SITES: Current owners of record: Delta Wetlands Properties

DESCRIPTION OF THE SITES:

Elevation of Land Area:

- **Webb:** -4 to -18 feet
- **Bacon:** -10 to -16 feet
- **Bouldin:** -11 to -17 feet
- **Holland:** +3 to -16 feet

Status of Levees (Riprap, limits on height):

The four Project islands are completely bounded by non-project levees (built and maintained by local Reclamation Districts). The levees on all four project islands are maintained to local reclamation district standards with minimum top widths of 16 feet, exterior levee slopes of 2:1, and variable interior slopes of 3:1 to 7:1, depending on depth of peat and toe berms. Levee elevations meet the existing minimum standards for agricultural levees, which is 1 foot above the 100-year floodplain. Levees are generally inspected two or three times a year.

Soils:

All project islands consist of soils that are classified by Department of Conservation's Farmland Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland (*see Table 3I-4, pg. 14*). The soil types on the project islands are generally characterized by a high water table and subsidence. These soils are typically used for irrigated row and field crops, or for dryland pasture and small grains.

- **Webb** (*Contra Costa County Soils*): 4,725 acres prime farmland; 130 acres farmland of statewide importance; 294 acres of unique farmland (5,149 total). More than 4,400 acres (approximately 86%) of Webb's soils are Rindge muck, characterized by a high water table, rapid permeability, and a moderate blowing hazard. The remaining 750 acres consist of various loams and mucks.
- **Bacon** (*San Joaquin County Soils*): 5,278 acres prime farmland; 125 acres farmland of statewide importance (5,403 total). Over 2,500 (47%) acres are Rindge muck, partially drained, with 0-2% slopes. More than 1,400 acres (26%) are Kingile muck, partially drained, with 0-2% slopes. The remaining 1,400 acres consist of various loams, and mucks with 0-2% slopes.
- **Bouldin** (*San Joaquin County Soils*): 5,711 acres prime farmland; 50 acres farmland of statewide importance (5,761 total). Nearly 2,200 (38%) acres are Rindge muck, partially drained, with 0-2% slopes. About 1,100 acres (19%) are Rindge mucky silt loam, overwash, with 0-2% slopes. Other soil types on Bouldin include Retryde-Peltier complex (889 acres [15%]) and Valdez silt loam (451 acres [8%]). The remaining 1,140 acres consist of various loams and mucks with 0-2% slopes.
- **Holland** (*Contra Costa County Soils*): 1,575 acres prime farmland; 2,031 acres farmland of statewide importance; 426 acres unique farmland (4,032 total). About 1,370 acres (approximately 34%) of Holland Tract's soils are Rindge muck. Over 900 acres (23%) are Shima muck, characterized by a high water table and moderate blowing hazard. Approximately 1,100 acres (28%) are Piper fine sandy loam, characterized by a high water table, low available water capacity, rapid permeability, and a moderate blowing hazard. The remaining 600 acres consist of various loams and mucks. Acreage includes 1,120 acres excluded from the project.

Water Sources:

Water supply for existing buildings and facilities is provided by wells on the islands, water from nearby channels, and bottled water service. Water for agriculture is drawn from adjacent channels through siphons and then distributed on the islands through a network of supply ditches.

Drainage From or Through Site:

Each of the four islands contains a network of canals and seep ditches used to collect rainfall, seepage, and irrigation water that is pumped back into the nearby channels.

General Plan Designations: (see Figure 3I-2, pg. 15)

- **Webb** (Contra Costa County): Delta Recreation and Resources (DRR)
- **Bacon** (San Joaquin County): General Agriculture (AG)
- **Bouldin** (San Joaquin County): General Agriculture (AG)
- **Holland** (Contra Costa County): Delta Recreation and Resources (DRR)

Zoning:

- **Webb** (Contra Costa County): A-2 (5-acre minimum parcel size)
- **Bacon** (San Joaquin County): AG-80 (80-acre minimum parcel size)
- **Bouldin** (San Joaquin County): AG-40 (40-acre minimum parcel size)
- **Holland** (Contra Costa County): part A-3 (10-acre minimum parcel size) and part A-2

Williamson Act Contract: (see Figure 3I-3, pg. 16)

- **Webb:** Most of the island is not under Williamson Act contract; only one parcel, False River Farms (139 acres) is under contract.
- **Bacon:** Most of the island (4,662 acres) is under Williamson Act contract; only two parcels are not.
- **Bouldin:** The entire island (5,761 acres) is under Williamson Act contract.
- **Holland:** None of the island's 4,032 acres are under Williamson Act contract.

USES OF THE SITES:

Agricultural Uses and Crops (See Table 3I-5, pg. 17 for 1988 acreage)

Approximately 63% of the project's 20,345 acres is in active agricultural use.

Predominant field crops include corn, wheat, milo, sunflower, and potato. About 9% of project acreage is in perennial crops such as asparagus or vineyards. 445 acres are permanently grazed, primarily by beef cattle. Several thousand acres of field crops are grazed seasonally by sheep for weed control and stubble reduction.

- **Webb:** Most of the 3,249 acres in agricultural use are field corn and wheat; over 600 acres are temporarily fallow. Pastureland is also present.
- **Bacon:** Over half of the 4,678 acres in agricultural use are potatoes and asparagus; field corn is also present in large amounts. Nearly 350 acres are temporarily fallow. Other crops include vineyards, sunflower, and milo.
- **Bouldin:** Most of the 5,080 acres in agricultural use are field corn, wheat, and sunflower; nearly 700 acres are temporarily fallow. Pastureland is also present.
- **Holland:** The 2,750 acres in agricultural use consist of mainly wheat, pastureland, and asparagus, with some field corn present. About 27% of this acreage is temporarily fallow.

Current Value of Crops: Unknown

Current Property Taxes, Fees, etc. Which Support Governmental and Special District Activities: Approximately \$350,000 annually (per 2001 tax assessment).

Existing Utilities and Infrastructure

Each of the four islands contains siphon pipes from channels to a network of canals and ditches used for irrigation.

PG&E operates 12-kilovolt electrical distribution lines to serve residences and farm operations; these lines are run from wooden utility poles.

Figure 3E-1 shows County roads and highways in the vicinity of the four project islands:

- **Webb:** No County roads exist; there is ferry service to Webb from Jersey Island.
- **Bacon:** A County road provides limited access to portions of the island and access to Mandeville Island.
- **Bouldin:** State Route 12 crosses Bouldin Island; there are no county roads on the island.
- **Holland:** Holland Tract Road, a county road, crosses the island, although the portions on east and west perimeter levees beyond locked gates have been abandoned by Contra Costa County Public Works Dept.

Other nearby facilities:

PG&E and Western Area Power Administration's transmission lines cross Veale and Hotchkiss Tracts.

Santa Fe Railroad's Stockton-to-Richmond line is located just south of Bacon Island.

Mokelumne Aqueduct is located approximately 800 feet south of the Santa Fe rail line.

Existing Gas Wells, and Support Facilities:

- **Webb:** There are presently two wells producing natural gas. There are also several plugged or abandoned gas wells on the island.
- **Bacon:** PG&E owns two natural gas pipelines that cross Bacon Island.
- **Bouldin:** No gas wells or transmission facilities present.
- **Holland:** No gas wells or transmission facilities present.

Existing Structures and Uses

Each of the four islands contains siphon pipes from channels to a network of canals and ditches used for irrigation.

- **Webb:** There are a small number of agricultural structures and complexes on the island, mainly near the perimeter levees. Occupied residences include one trailer and a clubhouse on high ground at the eastern tip of the island.
- **Bacon:** There are approximately 20 farmsteads or rural residences on the island near the perimeter levees. Additionally, five or six farmworkers' barracks are occupied seasonally. Agricultural structures and equipment complexes are located in the northern, central, and southern portions of the island. There is an airstrip for crop dusting flights located on the eastern portion of the island.
- **Bouldin:** Scattered agricultural structures and equipment complexes are located in the northern, central, and southern portions of the island. Several residences and associated farmstead structures are located north of State Route 12. Two residences,

one occupied, are located south of State Route 12 on the eastern side of the island; there is an airstrip for crop dusting flights west of these residences. An abandoned oil drilling pad is also present in this area. Finally, there is an old unoccupied duck club currently used for decoy storage and similar uses.

- **Holland:** Agricultural structures and equipment complexes are scattered along the southern and western perimeter levees. Residences include a temporary trailer in the northeast portion of the island bordering Holland Cut, and two residences on the western portion of the island (857-acre Solomon parcel in the southwestern corner of the island). An abandoned hog feeding area and several structures ancillary to hog farming are in the western portion of the island. Additionally, there are two marinas – Lindquist Landing Marina and Holland Riverside Marina – at the southern boundary of Holland Tract on Rock Slough. Lindquist Landing Marina features boat docks and other structures ancillary to marina uses. The Holland Riverside Marina is a large facility with numerous boat docks, covered slips, and ancillary marina uses. The Solomon parcel, the marina parcels, and several other small parcels are excluded from the Delta Wetlands Project.

Existing Recreational Uses (Including Developed Commercial or Public Recreation Facilities and Informal Recreational Uses):

- **Webb:** No existing recreational facilities or uses.
- **Bacon:** No existing recreational facilities or uses.
- **Bouldin:** No existing recreational facilities or uses.
- **Holland:** Two marinas, Lindquist Landing and Holland Riverside Marina, are located along the southern edge of the island.

Existing Wildlife Habitat Values (Including Vegetation on Both Sides of the Levees, and Within the Interior of the Island/Tract):

Agriculture: Approximately 63% of the project's 20,345 acres is in active agricultural use. Predominant field crops include corn, wheat, milo, sunflower, and potato. About 9% of this acreage is in perennial crops such as asparagus or vineyards. 445 acres are permanently grazed, primarily by beef cattle. Several thousand acres of field crops are grazed seasonally by sheep for weed control and stubble reduction.

Riparian Habitat: Two woody riparian habitat types are found on the project islands: cottonwood willow woodland and willow scrub. Only 1% of the islands is occupied by woody riparian habitat; most of this habitat is found on Webb and Holland Tracts.

Marsh: Tidal marsh exists along the outside margins of the project islands. Nontidal freshwater marsh occupies a total of 224 acres, 77% of which is on Webb Tract. There is also 1,124 acres of exotic marsh vegetation, primarily on Webb and Holland Tracts.

Herbaceous Upland: About 1,514 total acres are annual grassland, found primarily on the interior slopes of the perimeter levees. There is also some exotic marsh and exotic perennial grassland.

Open Water: Open water covers approximately 2% of the four islands' land surface; this area consists of canals and major drainage ditches with permanent water in the island interiors. Most of the open water area on the islands is concentrated in two blowout

ponds on Webb Tract (106 acres) formed after levee breaches in 1950 and 1980 and one blowout pond on Holland Tract (17 acres), formed after a levee breach in 1980.

Number of Current Residents: Unknown

Number of Current Employees (including seasonal agricultural employment):

Annually, there are ten employees on Webb, 171 on Bacon, twenty on Bouldin, and five on Holland.

HISTORY OF FLOODING

Since 1932, two of the Project islands' levees (Holland and Webb) have flooded as a result of levee overtopping or failure. Major levee breaks occurred on Holland Tract in 1980 and Webb Tract in 1950 and 1980.

PURPOSE OF THE PROJECT

Delta Wetlands Properties proposes a water storage project on four Delta islands – Bacon Island, Webb Tract, Bouldin Island, and Holland Tract. The project would involve diverting and storing water on two islands (Webb and Bacon) for later export or to meet Delta outflow or environmental requirements, and water would be diverted seasonally to create and enhance wetlands and to manage wildlife habitat on the other two islands (Bouldin and most of Holland).

DETAILS OF THE PROPOSED PROJECT, OR PROJECT ALTERNATIVES UNDER CONSIDERATION

Levee Modifications (*see Figure 2-4, pg. 18*):

On the two reservoir islands (Webb and Bacon), the levees would be improved and armored on the interior surface for erosion protection. A typical improved levee would have the following features: a 2:1 exterior (water-side) slope; a 22-foot-wide crest; an elevation of about +9 feet; about a 3:1 interior (land-side) slope down to an elevation near -3 feet; and wide toe berms. Alternatively, the interior slope may be inclined at about 5:1. The initial levee crest would be constructed approximately 8 feet wider than the long-term planned width of 22 feet, to accommodate settlement and to allow for future levee raising. The erosion protection on the interior surface would include rock revetment, soil cement, or other armoring as necessary. The habitat island levees would also be improved.

Ownership and Management:

The Delta Wetlands Project, as currently proposed, would continue to be owned and operated by Delta Wetlands Properties. However, CALFED is analyzing the project's feasibility for inclusion in its in-Delta Storage program. If CALFED decides to pursue the project from Delta Wetlands Properties in the future, all four islands could be owned and operated by one or more public agencies, or the project could remain in private ownership and the water purchased by CALFED.

Constructed Facilities and Infrastructure:

The Delta Wetlands Project would construct new pumping and siphon stations on the reservoir islands to move water onto and off of the islands. The exterior levees would be strengthened and the interior of the reservoir islands would be armored. In addition, a mosaic of habitat types would be constructed on approximately 9,000 acres on the two islands habitat islands. The estimated project construction cost is approximately \$175 million but may vary with final permit terms and/or the requirements of the end user.

Proposed Funding Sources:

The project is privately funded by Delta Wetlands Properties.

Proposed Fees to be Paid in Lieu of Taxes and Assessments, If Any:

Delta Wetlands Properties would pay all taxes and assessments if the project remains in private ownership. The assessed value of the project area is expected to increase from \$22.8 million to approximately \$158 million; the property tax revenue generated by use of the islands could increase from an estimated \$350,000 to a projected \$1.9 million. This revenue would be allocated among Contra Costa and San Joaquin Counties and a number of special districts.

NEARBY PENDING AND PROPOSED PROJECTS

Nearby pending and proposed projects include:

- ◆ EBRPD activities at Big Break – East Bay Regional Parks District is formulating a management plan for recently acquired park property at Big Break.
- ◆ DWR study of Franks Tract/Big Break area – Dept. of Water Resources is studying how breaching certain levees at Franks Tract and Big Break may reduce Delta salinity.
- ◆ Various DWR studies and activities occurring on Sherman and Twitchell Islands. Samples of projects that have been funded include the “growing of peat” by flooding stands of tules.
- ◆ The Nature Conservancy’s pending acquisition of Staten Island for flood control, agriculture, and wildlife habitat purposes.
- ◆ Water quality planning and improvement activities for Contra Costa Water District’s Rock Slough intake (Veale and Byron Tracts).

PERMITS/ACTIONS REQUIRED

This project has obtained the following major permits:

U.S. Army Corps of Engineers (lead NEPA agency) – Delta Wetlands Properties is awaiting the issuance of a Section 404 permit regarding jurisdictional wetlands.

State Water Resources Control Board (lead CEQA agency) – Delta Wetlands Project granted water right permits in February 2001, Decision 1643.

State Water Resources Control Board – Section 401 Water Quality Certification in September 2001.

U.S. Fish and Wildlife Service and National Marine Fisheries Service – “no jeopardy” biological opinions issued in May 1997, June 1997, May 2000, and August 2000.

California Department of Fish and Game – 2081 agreement under the CA Endangered Species Act in June 2001.

The permits for the Delta Wetlands Project include terms and conditions contained in agreements reached between DWP, DWR, and USBR, which will protect the water supplies and senior water rights holders in the Delta. Such agreements preclude diversion to storage when surplus water is not available (per State and federal project needs). The Delta Wetlands Project is also subject to an array of terms established in agreements reached with East Bay MUD, CCWD, CUWA, the City of Stockton, Amador County, and the North Delta Water Agency.

CONFORMANCE WITH PROPOSED CALFED ACTIONS

The Delta Wetlands Project is currently being evaluated for inclusion in the CALFED Program's Storage component (in-Delta storage). CALFED's Record of Decision (August 2000) identifies several potential storage projects to be investigated for feasibility; one of the identified storage projects is the Delta Wetlands Project (up to 250,000 acre-feet of storage). The ROD sets forth a schedule of considerations including the need to complete a feasibility study of in-Delta storage by December 2001.

ISSUES:

Agriculture:

Cumulative Impacts to Prime Ag Lands in the Area? Yes; agriculture is the primary use of the four islands, and would be affected by implementation of the Delta Wetlands Project. The project would directly convert approximately 15,757 acres of agricultural land (including harvested cropland and pasture, short-term fallowed land, and long-term idled land) on the four islands. The habitat islands include developing over 9,000 acres that are consistent with the Williamson Act definition of "ag land" and 4,621 acres of active agricultural production.

Consistent with Williamson Act (State and County Levels)? The Williamson Act identifies compatible land uses as agricultural production, recreation, and open space; "ag land" includes land that is devoted to recreational use, within a scenic highway corridor, a wildlife habitat area, saltpond, or managed wetland area, or a submerged area. The City or County that has jurisdiction determines compatible uses in situations where the proposed land use is not clearly consistent or inconsistent.

San Joaquin County: The San Joaquin County Zoning Code, Section 9-4005.2(a)(14), states that water storage facilities are allowed in the AG zone as an "accessory use", so both project islands in San Joaquin County (Bacon and Bouldin) would be consistent with the Williamson Act at the State and County levels.

Contra Costa County: Water storage and habitat management are considered agriculture-related uses, so both project islands in Contra Costa County (Webb and Holland) would be consistent with the Williamson Act at the State and County levels.

Impacts to Adjacent Agricultural Land Uses, such as:

Seepage?

Weeds/Unwanted, Possibly Protected Plants "Migrating" to Ag Lands?

Protected Species "migrating" to Ag Lands?

Restrictions to Common, Accepted Ag Practices?

Buffer Areas Needed/Included Between Proposed Use and Existing Adjacent Uses?

Because the project proposes to convert entire islands (with the exception of Holland Tract), there are no anticipated impacts or restrictions associated with unwanted weeds or protected species migrating to adjacent agricultural lands.

There may, however, be a seepage impact to neighboring islands, many of which are in agricultural production, from operation of the storage reservoirs and from any proposed open-water habitat restoration on mitigation islands. The project proposes installation of interceptor wells on the exterior levees of the reservoir islands, and monitoring of seepage impacts to neighboring islands. In addition, there are various financial assurances available to neighboring islands.

Wildlife Habitat:

Will the Project Result in the Loss of Existing Habitat? What Type? Yes, the project would result in the loss of approximately 11,000 acres of existing terrestrial habitat (riparian, marsh, upland, agriculture, open water). However, the project would provide approximately 11,000 acres of open water (reservoirs) and over 9,000 acres of new habitat (riparian woodland, riparian scrub, freshwater marsh, and exotic marsh [which includes mixed agriculture/seasonal wetland, seasonal managed wetland, and seasonal pond]) which fully mitigates all losses of existing habitat.

Will the Project Protect and/or Enhance Existing Wetland Habitat (duck club, in-channel island)? *(Please refer to Figures 2-7 and 2-8, pgs. 19-20)*

Yes. The four Delta Wetlands islands contain 762.7 acres of jurisdictional wetlands, of which 568.8 acres are affected by conversion of the islands to water storage. All affected acres are fully mitigated on the habitat islands in accordance with the U.S. Army Corps of Engineers guidelines (mitigation ratios from 1:1 to 3:1). In addition, the habitat islands achieve far greater wetland values through the creation of the mosaic of habitat types including riparian, marsh, seasonal wetlands, and open water.

Is the Project Consistent with Regional Plans for Habitat Enhancement? The project design preceded adoption of the San Joaquin County Habitat Conservation Plan (HCP). Contra Costa County's HCP and CALFED's Delta Ecosystem Restoration Plan are under preparation.

Does the Project Take Advantage of Wildlife Habitat Benefits Associated with Agriculture (Mosaic Concept; Seasonal Flooding; etc.)? Yes, on the habitat islands *(see Figures 2-7 and 2-8, pgs. 19-20).*

Are there Benefits Associated with "Adding On" to Existing Habitat Areas, Such as Creation of a Corridor? The Delta Wetlands Project would "add on" to the acreage of seasonally flooded agricultural lands.

Are There Adequate Provisions for Management of the Sites? Delta Wetlands Properties would fund management of the mitigation islands by CA Dept. of Fish and Game. The reservoir islands would be managed by Delta Wetlands Properties.

Is Site Ownership an Easement Which Allows Land to Remain in Private Ownership? Fee title is held by a private company.

Project on Publicly Owned Land, Within Designated Refuge, or Lands Subject to Flood Easement? No.

Recreation:

Will Existing Recreation Activities be Displaced? No.

Does the Project Include New Recreational Development (New Trails, New Overlooks, New Small Boat Launch Facilities; New Fishing Facilities; New Picnic Facilities; New Interpretive Facilities)? Yes. The Project includes provisions for future recreational development on all four islands.

Would New Recreational Development Complement Surrounding Land Uses? Yes, on mitigation islands.

Other Issues:

Address Mosquito Control Component? The project would be managed to minimize mosquito production sources, through coordination with Mosquito Abatement Districts and implementation of appropriate abatement practices.

Promote Subsidence Control? Current agricultural practices on the project islands contribute heavily to subsidence rates. The cessation of some of these agricultural activities during implementation of the Delta Wetlands Project is expected to reduce subsidence, particularly on the reservoir islands (Webb and Bacon).

Impacts to Levees? The project would strengthen, widen levees on all four islands, and provide riprap on the interior of the levees to protect them from increased levee erosion and water pressure on the reservoir islands.

CONSISTENCY WITH DELTA PROTECTION COMMISSION'S LAND USE AND RESOURCE MANAGEMENT PLAN FOR THE PRIMARY ZONE OF THE DELTA:

(Please refer to Table 3I-7; pgs. 21-24)

Section 29760(b)(14) of the Delta Protection Act of 1992 states that the Resource Management Plan to be prepared by the Delta Protection Commission shall "permit water reservoir and habitat development that is compatible with other uses." Consequently, the Commission's Plan, adopted in 1995, contains a Land Use Recommendation R-6: "Water reservoirs that are consistent with other uses in the Delta should be permitted."